Proposed Prohibition
On-Site Wastewater Disposal Systems (Septics)
Malibu Civic Center Area

CA Regional Water Quality Control Board – Los Angeles Region

Community Meeting – October 1, 2009 (Pepperdine)

Agenda

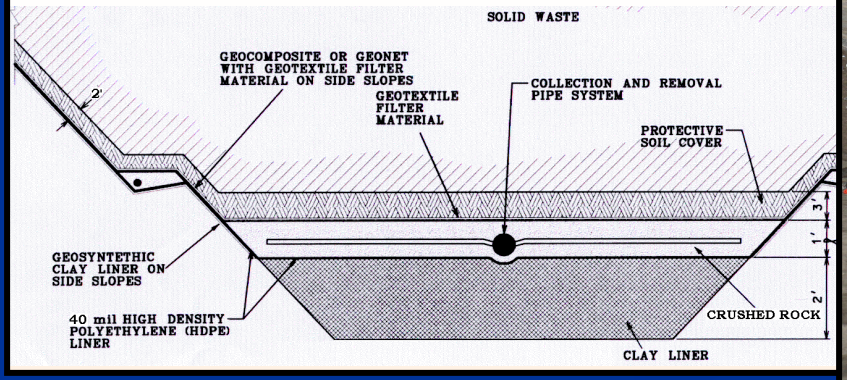
- CA RWQCB
  - Introductory Remarks, Who We Are
  - Reasons for the Prohibition
  - Structure of the Proposed Prohibition

    Who is Subject?

    How Were Boundaries Drawn?
- City of Malibu – share comments
- Public – provide comments

State and Regional Water Quality Control Boards

Regulating Discharges of Waste (Solid and Liquid)



Mission – to Protect Water Quality
for Present and Future Generations

- Prevent pollution: by regulating wastewater discharges – waste discharge requirements (WDRs)
  - Surface waters (aka NPDES* permits)
  - Ground waters (including landfills)
- Oversee clean-ups
- Rule-making:
  - Set water quality objectives (*Basin Plan*)
  - Specify waste loads for impaired waters (TMDLs**)
  - Issue prohibitions

*National Pollutant Discharge Elimination System **Total Maximum Daily Load

Area Subject to Prohibition ('Malibu Civic Center Area')

Reasons for the Prohibition

- Polluted groundwater (Tech Memo #2)
- Polluted beaches (Tech Memo #3)
- Polluted lagoon (Tech Memo #4)
- Compliance records of permitted dischargers (Tech Memo #1)
- Reliance on hauling raw sewage (Tech Memo #5)

Surfrider Beach May 10, 1998

Compliance Record (Tech Memo #1)

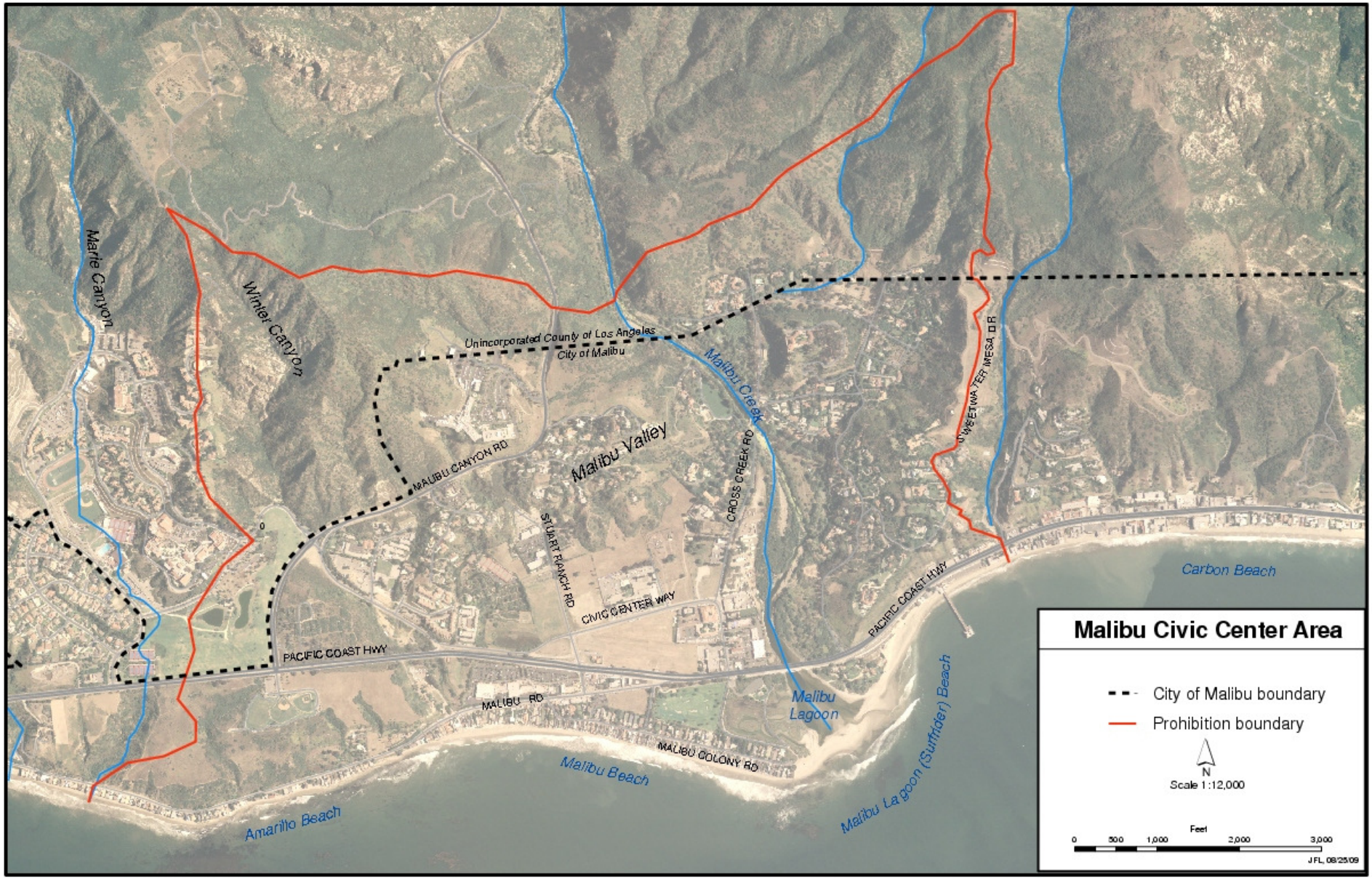
- 20 permitted dischargers have poor records of compliance with Regional Board Orders.
- The compliance status for small commercial and residential dischargers under City's oversight has not been analyzed.

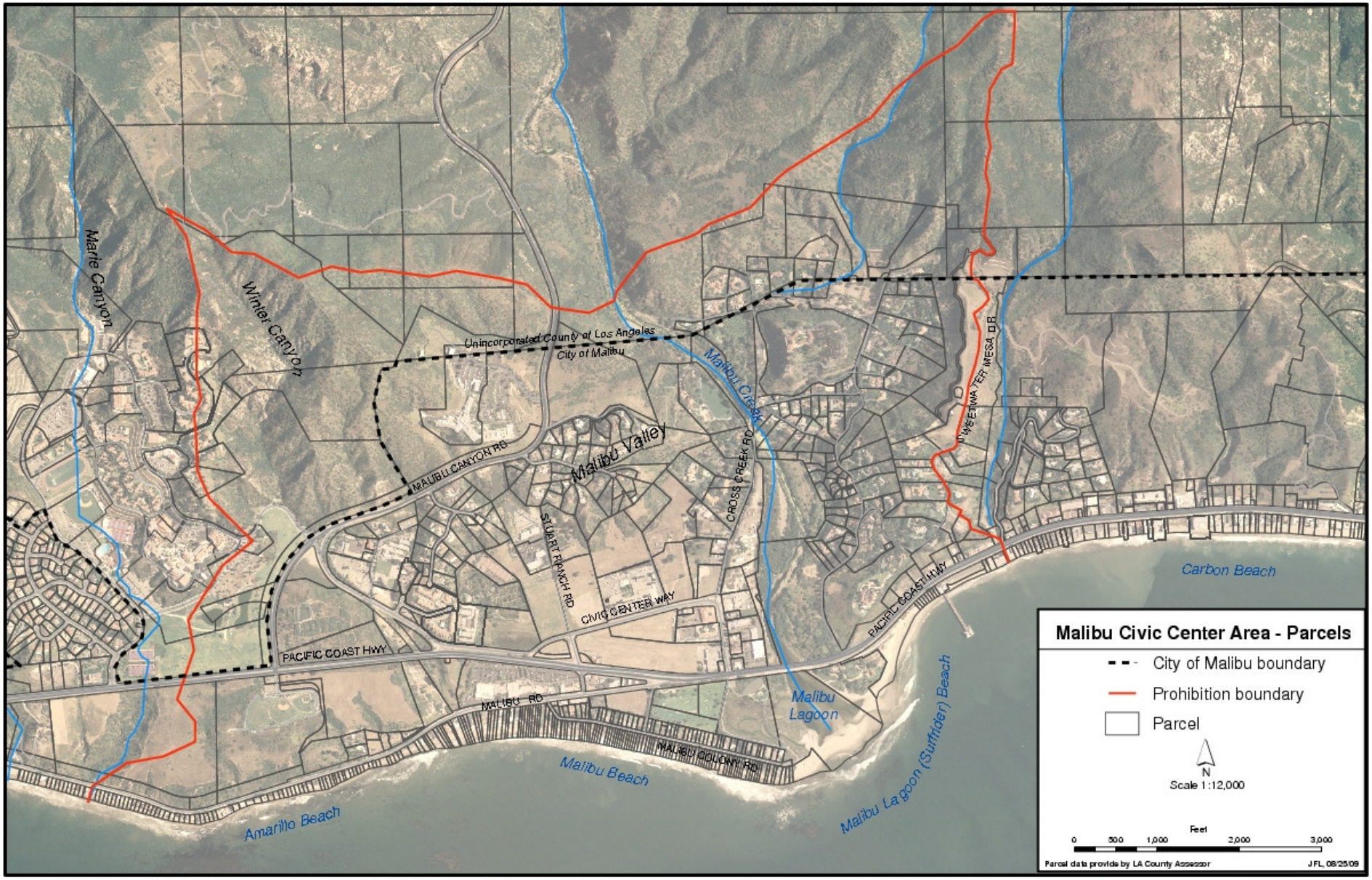
Hauling Practices (Tech Memo #5)

- Land uses generate more wastewater than can be transmitted into the subsurface.
- Increasing reliance on hauling raw sewage off-site (e.g. Carson)

- 7% of raw sewage is hauled off-site from a subset of dischargers.
- >20% increase in raw sewage (2004-2008)
- >29% increase in hauling (2004-2008)

Area Subject to Prohibition ('Malibu Civic Center Area')


Malibu Civic Center Area
City of Malibu boundary
Prohibition boundary
N
Scale 1:12,000
Feet
0
500
1,000
2,000
3,000
JFL 08/25/09
Unincorporated County of Los Angeles
City of Malibu
Malibu Valley
Malibu Creek
Malibu Lagoon
Malibu Lagoon (Surfrider) Beach
Malibu Beach
Amarillo Beach
Carbon Beach
Marie Canyon
Winter Canyon
MALIBU CANYON RD
PACIFIC COAST HWY
MALIBU RD
MALIBU COLONY RD
CIVIC CENTER WAY
STUART RANCH RD
CROSS CREEK RD
WESTWATER MESA DR


Malibu Civic Center Area - Parcels
City of Malibu boundary
Prohibition boundary
Parcel
N
Scale 1:12,000
Feet
0 500 1,000 2,000 3,000
Parcel data provide by LA County Assessor
JFL, 08/25/09
Marie Canyon
Winter Canyon
Unincorporated County of Los Angeles
City of Malibu
Malibu Creek
Malibu Valley
MALIBU CANYON RD
STUART RANCH RD
CROSS CREEK RD
CIVIC CENTER WAY
PACIFIC COAST HWY
MALIBU RD
MALIBU COLONY RD
WEATHERLY MESA DR
Carbon Beach
Malibu Lagoon
Malibu Lagoon (Surfrider) Beach
Malibu Beach
Amarillo Beach

Who Would Be Affected?

- Applies to all discharges in the Malibu Civic Center area:
  - Commercial and industrial facilities
  - Public facilities
  - Residential properties
- Applies to ALL discharge systems (passive convention septics to advance plants)

When Would You Be Affected?

See handout for details

- New discharges: immediately (Nov 5, 2009)
  - No new projects*
- Existing discharges: November 5, 2014
  - Repairs and upgrades allowed, provided they comply with the deadline to cease discharge by 2014
  - No expansions (projects that will increase wastewater flows allowed)
- *Discharges in 'Pipeline'
  - Residential applicants
    - Nov 5, 2009 if permitting has not been completed
    - Nov 5, 2014 if permitting has been completed
  - Commercial applicants
    - Nov 5, 2009 if CA RWQCB has not deemed your RoWD (Report of Waste Discharge) adequate and complete
    - Nov 5, 2014 if CA RWQCB has deemed your RoWD adequate and complete

Next Steps

- Oct 8th at 2 pm – deadline for receipt (at CA RWQCB – LA) of written comments:

  Dr. Rebecca Chou, CA RWQCB-LA

  320 W 4th St, LA, CA 90013

- Oct 27th – Target for staff to respond to comments (check Web page) http://www.waterboards.ca.gov/losangeles/press_room/announcements/Public-Hearing-Malibu/index.shtml
- Nov 5th – Regional Board hearing and proposed adoption

  Metropolitan Water District of Southern California

  700 North Alameda Street

  Los Angeles, California

Contacts at the CA RWQCB - LA

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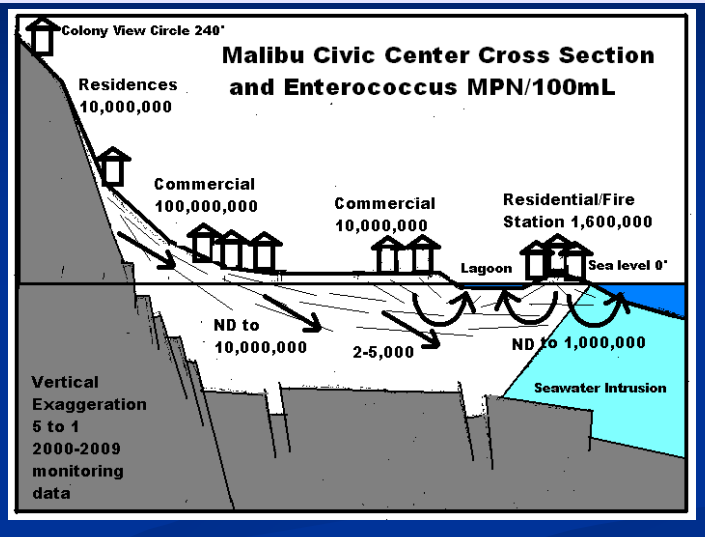
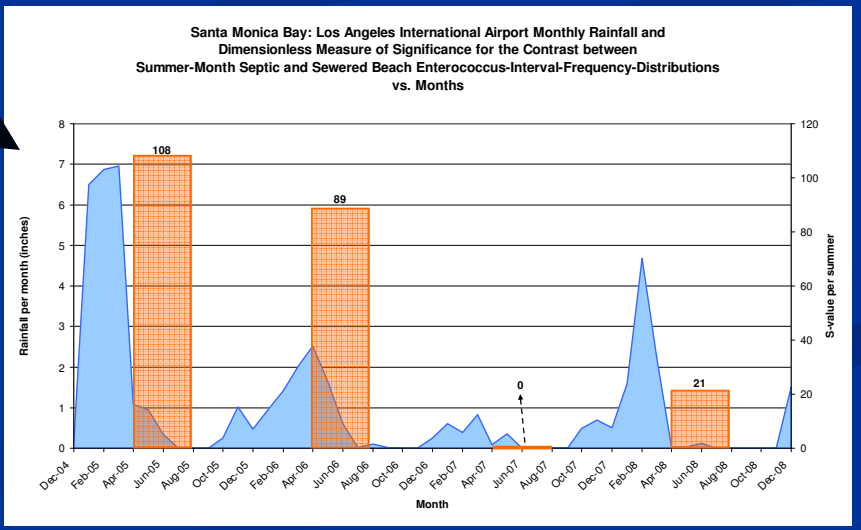
Media	Steve Cain	(213) 576-6694	scain@waterboards.ca.gov

For future updates and revisions on our Malibu Prohibition Web page:, go to http://www.waterboards.ca.gov/losangeles/press_room/announcements/Public-Hearing-Malibu/index.shtml . To subscribe to our list for these announcements, go to: http://www.waterboards.ca.gov/resources/email_subscriptions/reg4_subscribe.shtml and check Prohibition-Malibu Civic Center Septics.

Is there a path for Septic Bacteria Transport to the Beach?

- Yes. Bacteria have been identified at all points of the groundwater pathway from septic systems to the beaches at the Civic Center. 76% of the groundwater wells have bacteria pollution and Malibu studies say 92% of this water (78,000 to 126,000 cubic feet per day) enters the ocean.
- The incomplete studies are contradictory. The USGS study shows variability in groundwater discharge rates and contradicts constant discharge shown in the mounding study. Neither refute staff's analysis relating bacteria to groundwater discharge of the previous years winter rain.





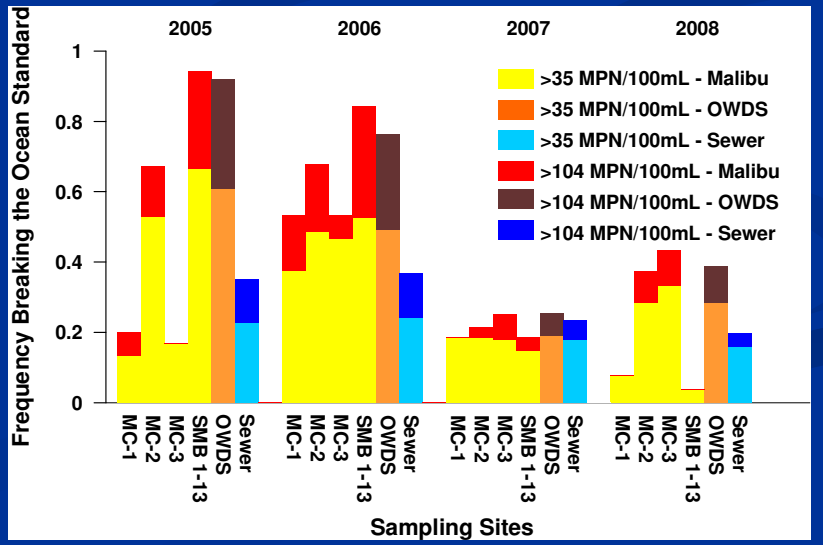
Do beach bacteria come from birds and non-human sources?

- Not all. Eighteen historical studies relate bacteria to septic systems. The human illnesses measured in 1995 are related to human pathogens.

- The five incomplete studies do not explain the bacteria problem at Malibu beaches. Non-human sources are also present at other beaches, yet Staff's analysis shows sewered beaches have less of enterococcus bacteria than Malibu beaches.

1995 Illnesses on Surfrider Beach
(SMBRP Epidemiology Study)

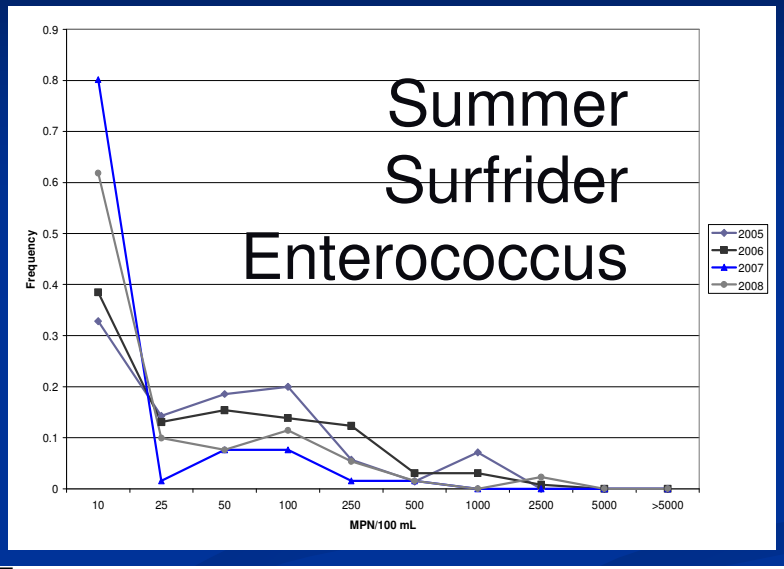
Highly Credible Gastrointestinal Illness (vomiting, diarrhea and fever)	Significant respiratory Disease (runny nose, coughing and fever)	One of: vomiting, diarrhea and fever or stomach pain and fever.
14 per 1,000 swimmers	45 per 1,000 swimmers	39 per 1,000 swimmers

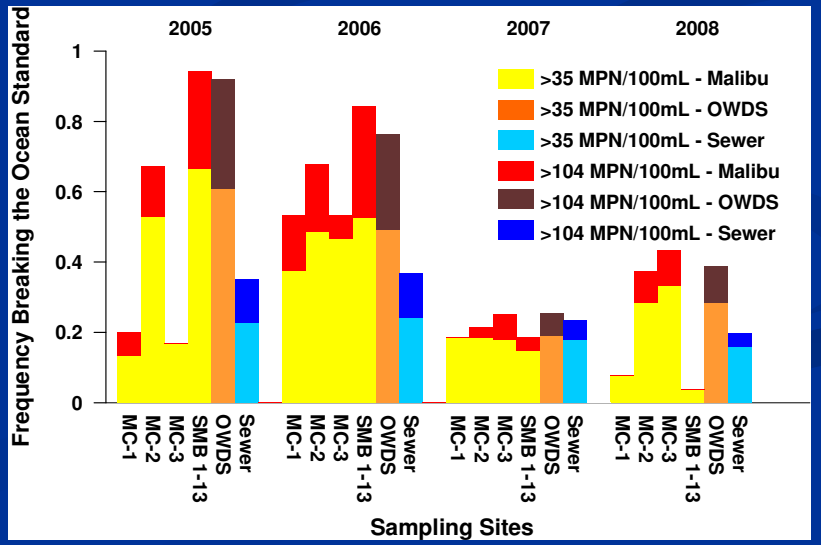


Are the homeless responsible for the beach bacteria?

- No. The bacteria at the Civic Center beaches correlate between the summers of 2005-2008. Homeless use would create more variation in bacteria.

- Homeless exist on all beaches, yet staff's analysis showed sewered beaches have less bacteria than Malibu beaches.





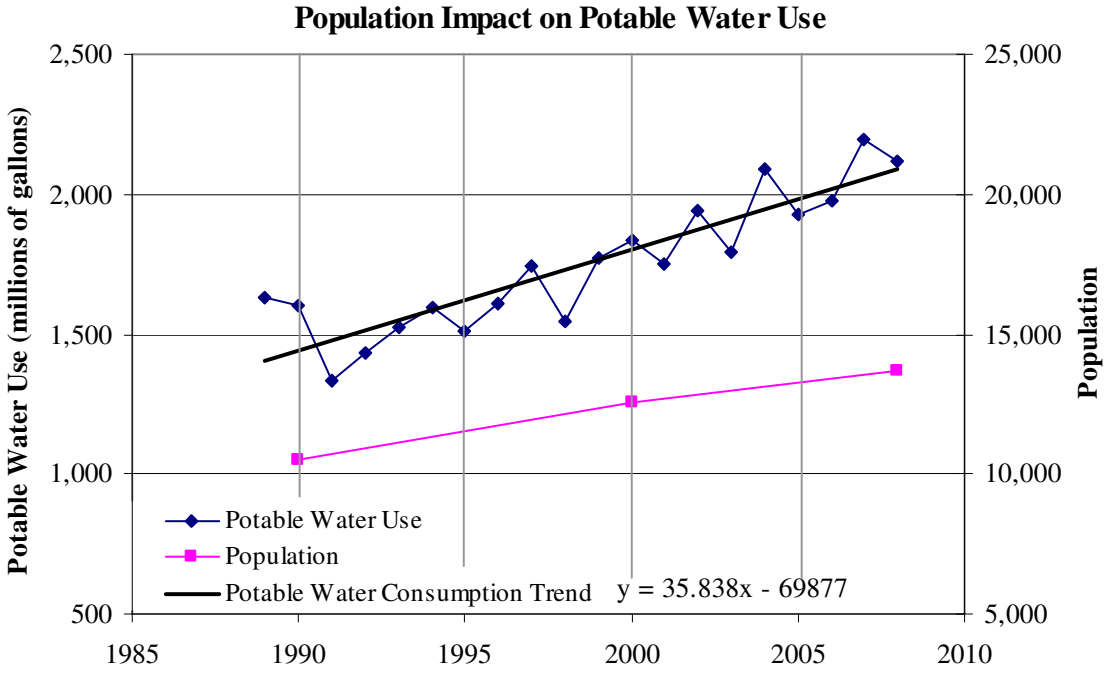
Who?		Subject to Prohibition?	Deadline to cease discharge?	Comment/Condition(s)
New Discharger:	Residential	Yes	Immediate	No new discharges after Nov 5, 2009.
	Commercial	Yes	Immediate	No new discharges after Nov 5, 2009.
Existing Discharger:	Residential	Yes	2014	Single-family homes must currently be in compliance with City's Ordinance 321 (re required Operating Permits).
	Commercial	Yes	2014	Commercial facilities without a WDR must immediately submit a Report of Waste Discharge (RoWD).
Existing Discharger with a repair or upgrade project:	Residential	Yes	2014	Repair or upgrade (at existing flow level) subject to approval by City. All upgrades must comply with City's Local Coastal Program (LCP) and provide a minimum of secondary treatment and disinfection.
	Commercial	Yes	2014	Repair or upgrade (at existing flow level) subject to approval by City and CA RWQCB.
Existing Discharger with an expansion project:	Residential	Not relevant, as a project that would increase wastewater flow is not allowed.		Projects that will increase wastewater flows not allowed after Nov 5, 2009. *(The City is expected to propose a revision, to allow for increased residential flows to 2014, under limited conditions – this has not been approved by the CA RWQCB.)*
	Commercial	Not relevant, as a project that would increase wastewater flow is not allowed.		No expansion to be allowed.
"In pipeline" Discharger, who is already in City's land development permitting process on or before Nov 5, 2009:	Residential	Yes	2009	*(The City is expected to propose an exemption, to allow interim discharge to 2014 for those applicants who paid all application fees and substantially fulfilled permit requirements by Nov 5, 2009 – this has not been approved by the CA RWQCB.)*
	Commercial	Yes	2009	If Discharger has completed an RoWD that has been deemed adequate by CA RWQCB staff by Nov 5, 2009, the CA RWQCB will proceed to process a WDR for interim discharge to 2014.

Ryan Thacher, CA RWQCB - LA
Water Resources Control Engineer Intern
Draft 10/6/2009

City of Malibu Water Consumption

Figure 1 below illustrates the relationship between potable water use in the City of Malibu and population increase from the late 1980s to the present. The linearization of the data reveals a trend of increasing water demand. Analysis of endpoints from the best fit line of this data shows that between 1989 and 2008 there has been a 49 percent increase in potable water consumption. Due to the yearly fluctuations in potable water consumption, using the best fit line for this calculation provides a more accurate perspective of the increasing water demand in the City of Malibu. The population of the City of Malibu has increased 31 percent from 10,479 people in 1990 to 13,700 people in 2008. Potable water consumption is increasing at a much greater rate than the population (49 percent versus 31 percent), indicating the per capita potable water consumption rate is not a static value, but is increasing as well.

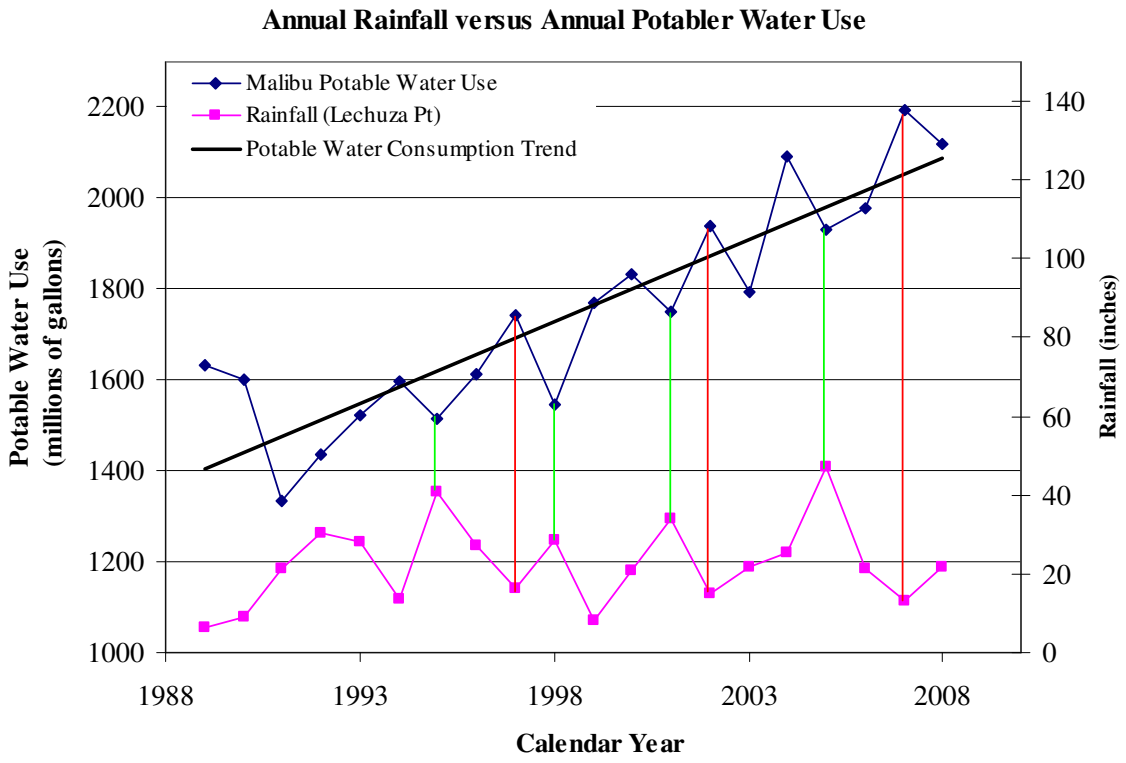
Figure 1. Potable water consumption in the City of Malibu plotted with population increases over the past two decades. Annual potable water consumption is increasing at a greater rate than population.



To analyze the large yearly fluctuations in potable water consumption, this data was compared with annual rainfall data gathered from the Lechuza Point/Fire Station 72 rain

gauge located in Malibu. Historical rainfall data by month from the early 1980s up to present day was provided to the Regional Board by the Los Angeles County Department of Public Works. This is shown in figure 2.

Figure 2. Annual rainfall data (by calendar year) compared with annual potable water use in the City of Malibu.



Looking at the relationship between potable water use in the City of Malibu and the amount of rainfall recorded during the corresponding year shows a strong inverse relationship. The red and green vertical lines emphasize years that clearly exhibit this behavior. Assuming water consumption per capita increases at a fairly constant rate despite weather patterns, the large seasonal fluctuations in annual water consumption seen in the City of Malibu can be attributed to potable water use for irrigation purposes.

Draft 9/30/09
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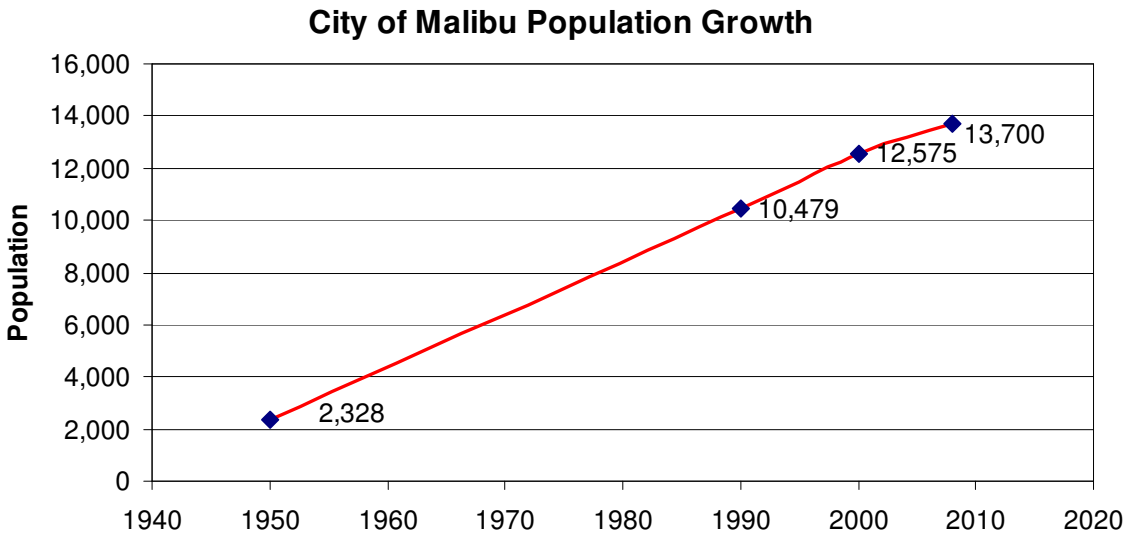
CA RWQCB – Los Angeles



The population trend of the City of Malibu has increased as shown in the above figure. According to the Malibu Coastal Vision Report titled "Malibu Yesterday, Today, and Tomorrow" (page 9), the population of Malibu was 2,328 in 1950. The 2000 Census indicates that the population in 1990 and 2000 was 10,479 and 12,275, respectively. Updated information presented in the report titled "Profile of City of Malibu" funded by the Southern California Association of Governments and dated May 2009, indicated in page one that the population in 2008 was 13,700. Based in the above information, the population grew at an average rate of 3.83% per year from 1950 to 1990, 1.84% per year from 1990 to 2000, and 1.08% per year from 2000 to 2008.

Regional Board staff estimates the population in 2009 at 1,842 for the proposed prohibition area. Based on the County of Los Angeles Assessor's data, there are 391 single family houses. The average number of bedrooms per house is four and assuming one person per bedroom, the population is 1,564 people for the houses. In addition, there are four multifamily complexes that have a total of 191 units with an estimated of 278 bedrooms. Again, assuming one person per bedroom, this indicates 278 additional people.

The estimated population does not include daytime and evening workers who are employed in the Malibu Civic Center area. Nor does it include daytime and evening visitors, who enjoy the beaches and patronize the business and public facilities.